

Serial No. 10/784,199
Attorney Docket No. 15-046

REMARKS

Please consider the following comments. Following this response, claims 1-7 are pending. The applicant respectfully requests reconsideration and allowance of this application in view of the following remarks.

Priority

Applicant has made a claim to foreign priority under 35 U.S. C. §119 in this case based on Japanese priority document JP 2003-058889. This Japanese document is cited in the specification and the declaration, and a copy was submitted with the original application papers.

Applicant respectfully request that he Examiner indicate acknowledgement of this claim for priority and provide notice that the certified copy of the priority documents has been received. With this response Applicant has provided a copy of the date-stamped receipt indicating that the priority document was timely filed, along with a copy of the front page of the priority document.

Information Disclosure Statement

The applicant acknowledges and appreciates receiving an initialed copy of the form PTO-1449 that was filed on February 24, 2004.

Amendment to the Specification

By this response Applicant has amended the specification to correct a minor typographical error. In particular, on page 7, line 15, the divider resistors were incorrectly identified by the repeated reference numerals 53, 53. This has been changed to refer to reference numerals 53, 54. This is to bring the specification into conformance with the drawings, so no new matter has been added by this amendment.

Serial No. 10/784,199
Attorney Docket No. 15-046

Claim Rejections – 35 U.S.C. § 102

The Examiner has rejected claim 1 under 35 U.S.C. § 102(b) as being allegedly anticipated by Published Japanese Patent Application No. JP 2001-178118 to Kishi ("Kishi"). Although claims 2-6 were not specifically called out in the language of the rejection, The Examiner has addressed each of these claims in the body of the rejection. Applicant therefore will treat this rejection as being of claims 1-6. Regardless, Applicant respectfully traverses this rejection.

Applicant's claim 1 recites a power source and a voltage comparator connected to the power source for comparing a voltage of the power source with a predetermined reference voltage and for outputting a control signal when the power source voltage is higher than the reference voltage. This can be seen by way of example in the comparator 51, divided resistors 53 and 54, and the reference voltage source 52 in Applicant's disclosure. (See, e.g., Applicant's specification, page 6, line 6, through page 7, line 3, and FIG. 2.) The Examiner has asserted that this is shown by a power supply 1 and comparator 20 in Kishi. However, a careful examination of Kishi will show that this is not the case.

Kishi discloses a booster circuit that is designed to shorten a time for charging a backup capacitor 4 to a predetermined level. In the circuit of Kishi, a comparator 20 monitors the voltage across the resistor 12. When this voltage exceeds a predetermined level, a cycle period of on-off operation of a switching transistor 22 is shortened. The comparator 20 in Kishi does not compare a voltage of the power supply 1 with a predetermined reference voltage. Comparing a voltage across a resistor 12 is not the same as comparing a voltage of the power supply 1 with a reference voltage, and it is not proper for the Examiner to characterize it as such.

Serial No. 10/784,199
Attorney Docket No. 15-046

Applicant's claim 1 also recites a protecting switch disposed in a circuit between a power source and an electric circuit that is supplied with electric power, the protecting switch being turned off when the control signal is supplied from the voltage comparator to the protecting switch. This can be seen by way of example in the protecting switch SW in Applicant's disclosure. (See, e.g., Applicant's specification, page 6, line 14, through page 7, line 7, and FIG. 2.) The Examiner has asserted that this element is shown in the abstract, though he provides no reference as to where this is shown in the drawings. However, a careful examination of Kishi will show that it does not disclose a protecting switch as recited in claim 1. Thus, even if a disclosed comparator in Kishi were considered to make the comparison recited in claim 1, Kishi would still fail to render claim 1 obvious since it does not disclose the recited protecting switch.

To start with, nothing in Kishi explicitly discloses a switch. Applicant understands that the Examiner may consider one of the disclosed transistors in Kishi to read on the recited protecting switch, and will proceed based on this understanding. However, even if one of the transistors in Kishi did operate as a switch, none of them would read on the protecting switch recited in claim 1 since none are disposed between a power source and an electric circuit that is supplied with electric power.

In its FIG. 1, Kishi discloses two transistors (a switching transistor 22 and a transistor 14); and in its FIG. 3 Kishi discloses a single transistor 14. The switching transistor 22 of FIG. 1 is disposed between a clock circuit 21 and ground; the transistor 14 in FIGs. 1 and 3 is disposed between a coil 13 and ground. None of these transistors are disposed between the power supply 1 and a circuit that is supplied with electric power.

The Examiner may be asserting that the recited protecting switch is shown by the transistor 14, and that because one terminal of the transistor 14 is connected to a path between

Serial No. 10/784,199
Attorney Docket No. 15-046

the power supply 1 and the circuit element 7, that the transistor may itself be considered as disposed between the power supply 1 and a circuit element 7. If this is the case, Applicant strongly traverses this characterization.

A switch by its nature provides either a short circuit or an open circuit between two connections, depending upon a control signal. As such, when a switch is referred to as being disposed between two points, those points must be located at (or at least along path to) those two connections. To refer to a switch as being disposed between two points when only a single end of the switch is connected to both points would run counter to the well known operation of switches.

Thus, if the Examiner is asserting that the transistor 14 is operating as a protecting switch, then Applicant observes that the transistor 14 is not disposed between a power source and a circuit that is supplied with electric power, as required by claim 1.

In addition, Applicant notes that neither the switching transistor 22 nor the transistor 14 in FIG. 1 of Kishi are turned off based on the output of a comparator. Kishi notes that current supplied from a DC power supply 1 to a coil 13 is intermittently controlled by a switching transistor 22 that is operated based on a clock pulse with a fixed period. A capacitor 4 is charged with a boosted voltage, and control is made so that the on/off period of the switching transistor becomes longer than normal when the charged voltage exceeds the reference voltage (i.e., when the voltage across the resistor 12 rises above a certain level).

However, nothing in this description discloses or suggests that either the switching transistor 22 or the transistor 14 be turned off when they receive a control signal from the comparator 20. Thus, the on/off period of the switching transistor 22 becomes longer than normal when the voltage across the resistor 12 rises above a certain level, and the on/off period of the transistor 14 may also change based on the period of the clock pulses Q2 and Q3 generated

Serial No. 10/784,199
Attorney Docket No. 15-046

by element 21. In fact, nothing in Kishi discloses that these transistors are ever definitively turned off. And characterizing a change in an on/off period of a transistor as being the same as turning the transistor off would be improper.

Thus, for at least the reasons given above, neither the switching transistor 22 nor the transistor 14 disclose the features of the protecting switch recited in claim 1.

Claims 2-6 all ultimately depend from claim 1 and are allowable for the reasons given above for claim 1.

In addition, claim 3 recites that the protecting switch is disposed between the power source and a voltage booster, while claim 5 discloses that the protecting switch is disposed between the voltage booster and an electrical circuit. Applicant remains uncertain as to exactly which element in Kishi the Examiner asserts reads on the recited protecting switch. But Applicant observes that given the similarity between FIGs. 1 and 3 of Kishi, it would be difficult for any element in these figures to be both "disposed between the power source and a voltage booster" and "disposed between the voltage booster and an electrical circuit."

For at least these reasons, Applicant asserts that Kishi does not disclose every feature recited in claim 1-6. Applicant therefore respectfully requests that the Examiner withdraw the rejection of claim 1-6 under 35 U.S.C. § 102(b) as being allegedly anticipated by Kishi.

Claim Rejections – 35 U.S.C. § 103

The Examiner has rejected claim 7 under 35 U.S.C. § 103(a) as being allegedly unpatentable over Kishi in view of Japanese Published Abstract No. JP 08310337 A to Matsui ("Matsui"). Applicant respectfully traverses this rejection.

Serial No. 10/784,199
Attorney Docket No. 15-046

Claim 7 incorporates the limitations of claim 1 and is allowable for at least the reasons given above for claim 1. What Kishi does not disclose it likewise does not suggest. And nothing in Matsui cures the deficiencies in Kishi noted above.

Applicant therefore respectfully requests that the Examiner withdraw the rejection of claim 7 under 35 U.S.C. § 103(a) as being allegedly unpatentable over Kishi in view of Matsui.

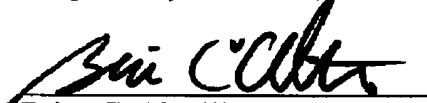
Conclusion

For all the reasons advanced above, Applicant respectfully submits that pending claims 1-7 are allowable.

In view of the foregoing, Applicant respectfully submits that this application is in condition for allowance. A timely notice to that effect is respectfully requested. If questions relating to patentability remain, the examiner is invited to contact the undersigned by telephone.

Please charge any unforeseen fees that may be due to Deposit Account No. 50-1147.

Respectfully submitted,



Brian C. Altmiller
Reg. No. 37,271

Posz Law Group, PLC
12040 South Lakes Drive, Suite 101
Reston, VA 20191
Phone 703-707-9110
Fax 703-707-9112
Customer No. 23400